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Reply to office action of July 6, 2004

Remarks/Arguments

Applicant gratefully acknowledges the thorough Examination to date and has made an effort to fully respond to all the issues raised by the Examiner. Applicant has taken care and believes that no new matter has been introduced by way of this amendment. Reconsideration of the application in view of the above amendments and following remarks is respectfully requested.

Objection to the Specification

The Examiner has objected to the incorporation of essential material in the specification, discussed on page 15, lines 21 – 22, by reference to a foreign application or patent, or to a publication as improper. Applicant has deleted the reference to the U.S. application, which has not yet published. The referenced foreign Canadian application has now issued as Canadian Patent No. 2,296,133. The material of the Canadian patent '133, as filed which was incorporated by reference has been added to the subject application as follows:

"whereby a method of analyzing a communication network comprising determining a mean drop rate in a device x by polling each device from a network management computer (NMC) which is in communication with the network, and processing signals in the NMC to determine a drop rate D(x), in accordance with: D(x) = ((L+(x)-L-(x))/2, and L(x) = 1-A(x) where A(x): the fraction of poll requests from the NMC to device x for which the NMC receives replies (measured over the last M sampling periods), (wherein x must not be broken), D(x): the mean frame drop rate in device x, L(c): NMC's perception of the loss rate to device x and back, L-(x): the NMC's perception of the mean value of L(z) for all devices z connected to device x, closer to the NMC than device x and which are not broken, and L+(x): the NMC's perception of the mean value of L(z) for all devices z connected to device x, further away from the NMC than device x and which are not broken is disclosed...".

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Applicant believes that no new matter has been added by way of amendment as the above text is taken verbatim from the foreign Canadian application as initially published. Enclosed herewith is an executed declaration stating that the amendatory material consists of the same material incorporated by reference in the subject application. Thus, the Applicant respectfully submits that the objection has been overcome.

Rejection of Claims 1 through 10 under 35 USC 112

The Examiner has rejected Claims 1 through 10 under 35 U.S.C. 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended independent Claim 1 such that step c) reads as follows: "combining said routing determined for each segment in step b) to obtain a total routing through the network." [emphasis added] Applicant respectfully submits that the amendment more clearly defines step c) in Claim 1 as combining said routing of step b). As independent Claim 1 is no longer deemed indefinite by the Applicant, the dependent Claims 2 through 10 are no longer indefinite based on a rejection of Claim 1. As such, the objection under 35 U.S.C. 112 has been overcome.

Rejection of Claims 1-10 under 35 USC 102

The Examiner has rejected Claims 1-10 under 35 USC 102 as being anticipated by U.S.P.N. 5,910,803, issued to Grau et al. The Examiner states:

"Regarding claim 1, in accordance with Grau reference entirety, Grau discloses a method for determining a routing for packets in a network, said method (Figs. 7A-7B and col. 8, line 11 to col. 11, line 60) comprising:

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    a) dividing said network into WAN (Wide Area Network) segments and LAN (Local Area Network) segments (col. 8, line 11 – col. 9, line 43);

    b) determining a routing for packets through each segment (col. 13, lines 6-13; Route tracing);

    c) combining routing results obtained in step b) to obtain a total routing through the network (col. 13, lines 14-20)."

    Applicant respectfully submits that the Grau et al. patent is a mapping tool that simply maps network topology and therefore is unrelated to the present invention. A key difference is that the Grau et al. patent utilizes a topology database that has been previously determined. Specifically, the route tracing aspect described in column 13 of the Grau et al. patent is a navigation feature that "highlights" a previously determined route of links rather than a feature as discussed in paragraph b) and c) of Claim 1 for determining and combining routings in the subject application.

    The problem solved by the present invention is the determination topology of a network, which is performed by determining paths between two objects. According to the present invention, the network of networks objects is divided into LANS and WANS, whereby the network objects are classified based on certain criteria characteristic of LANS and WANS. On page 7 of the subject application there is a discussion of WAN segments versus LAN segments respectively. LAN segments are generally connected non-router objects bound by router objects whereas WAN segments are generally inter-connected router objects bounded by LAN segments. Claim 1 divides the network into LAN and WAN segments so as to enable the determination of the routing of packets in the network. The Grau et al. methodology and system does not actively seek out to resolve ambiguities in the routing paths of packets. Thus, the Grau et al. patent does not anticipate the subject matter of independent Claim 1.

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With respect to the dependent Claims 2 through 10, Applicant believes that the subject matter of the dependent claims is allowable as they include limitations of base Claim 1 which is not anticipated by the Grau et al. patent. Thus, the rejection of Claims 2 through 10 is overcome.

Finally, Applicant has further amended the Claims to more clearly define the invention. Newly presented Claim 17 includes subject matter of Claim 12 related to measuring network performance for each segment in the routing and the total network performance for the total routing. This subject matter is deemed allowable for reasons provided in the Office Action and thus is not anticipated by the Grau et al. patent. Furthermore, Applicant has amended the preamble of Claim 1 to include "a network of network objects" to define a proper antecedent basis for element "network objects" in the subsequent Claims. The Applicant believes that no new matter has been added by way of this amendment.

Allowable Subject Matter of Claim 11-16

The Applicant acknowledges with thanks that the Examiner has allowed Claims 11 through 16 for reasons provided in the Office Action.
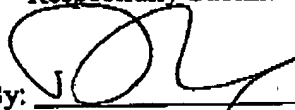
Conclusion

Applicant respectfully submits that the outstanding rejections under 35 USC 112 have been overcome by the above amendment and corresponding remarks. Applicant has made an effort to substantially eliminate any unclear details within the claims and believes that no new matter has been entered during this process. The 35 USC 102 rejection has also been overcome by way arguments made in the remarks section above. Applicant respectfully submits that all of the claims presently standing in the application are patentably distinguished from the teachings of all references of record either taken

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alone or in any combination. Accordingly, reconsideration and allowance of this application is respectfully solicited.

Should any further fees or payments be necessary for entry of this amendment and further prosecution of this application, the undersigned hereby authorizes the Commissioner to debit and/or credit our Deposit Account No. 16-0600.

Respectfully Submitted,

By: _____
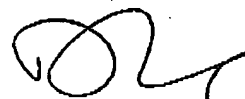Dennis S. K. Leung
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I **Dennis S. K. Leung** hereby declare that the amendatory material within the specification beginning at line 20 of page 15 thereof consists of the same material incorporated by reference in the referencing Canadian Patent 2,296,133 as initially published, July 27, 1998.

_____
Dennis S. K. Leung
Reg. No. 47 325

_____October 6, 2004_____
Date